Cloud Type Protocol

Purpose

To observe cloud type at the school's Atmosphere Study Site

Overview

Cloud type is useful in climate studies and is related to precipitation and air temperature.

Time

5 minutes

Level

All

Frequency

Daily within one hour of local solar noon

Key Concepts

Cloud formation
Composition of the atmosphere
Cooling/warming effect of clouds

Skills

Identifying cloud type
Recording data
Observing carefully

Materials and Tools

Atmosphere Investigation Data Work Sheet
GLOBE Cloud Chart
Observing Cloud Type (in the *Appendix*)

Prerequisites

None

How to Observe Cloud Type

From your cloud-type observation site, examine the clouds in the sky. Refer to the GLOBE cloud chart and the definitions found on the *Observing Cloud Type* sheet in the *Appendix* to determine the cloud type(s) present. Check a box on the Atmosphere Data collection sheet for each cloud type that you observe. Do *not* estimate the amount of each cloud type.

Note: In some instances, it may be difficult to distinguish between cloud types (e.g. altocumulus versus cirrocumulus). In these cases, students should use their best judgement and note their uncertainty in the comment section and in their GLOBE Science Notebooks.

Data Submission

Report the following to the GLOBE Student Data Server:

Date and time of the cloud-type observation in Universal Time (UT).
Cloud type(s) observed (you can report more than one cloud type).

Universal Time

A simple way of thinking about Universal Time (UT) is to ask "What time (on a 24 hour clock) is it now in Greenwich, England?" Since Greenwich is on the line of zero longitude, this is a starting point for the global day. At midnight in Greenwich, the UT is 0:00. In recent history, UT was called GMT for Greenwich Mean Time.